Some Considerations in Management of Pigmentary Glaucoma

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Abstract
Patients with disperse pigmentation syndrome (DPS) and intraocular pressure should be treated before switching to pigmentary glaucoma (PG) and causing optic damage. DPS is characterized by excessive pigment liberation throughout the anterior segment/ iris of the eye. In medical treatment: acetazolamide is the drug of the first choice because it does not cause spasms. Surgical treatment should be done in the case really needed with intraocular did not normalize for a long time as well as the cause of PG. Examination of the peripheral retina in patients with DPS and PG is very important to detect degeneration requiring treatment. This paper noted some consideration on classification and management of pigmentary glaucoma
Key words: *Pigmentation syndrome, pigmentary glaucoma, Dapiprazole, YAG laser, retinal detachment.*

1. Introduction:

Disperse pigmentation syndrome (DPS) and intraocular pressureleading to pigmentary glaucoma (PG) with optic damage need be treated [1]. DPS is characterized by excessive pigment liberation throughout the anterior segment/ iris of the eye. In medical treatment: acetazolamide is the drug of the first choice because it does not cause spasms. Surgical treatment should be done in the case really needed with intraocular did not normalize for a long time as well as the cause of PG. Examination of the peripheral retina in patients with DPS and PG is very important to detect degeneration requiring treatment [1, 2, 3]. This paper noted some consideration on classification and management of pigmentary glaucoma

Classification:

Disperse pigmentation syndrome (DPS) and pigment glaucoma (PG) often occur in near-sighted young people [1][2][3]. The cause of pigment dispersion is scrubbing of the iris leading blockage of the trabeculum. Transient glaucoma dues to uncontrolled disperse pigmentation. A review of the literature from diffusion pigmentation syndrome to pigment glaucoma is about 20%. The main risk factors for the transition from pigment dispersion to pigment glaucoma are glaucoma and nearsightedness. Acetazolamide is an effective carbonic anhydrase inhibitor in the treatment of pigment glaucoma. YAG laser circumcision reduced the incidence of glaucoma in dispersion pigmentation syndrome although results are less published for those over 40 years of age. Reticular degeneration is found in approximately 33% of eyes with dispersion pigmentation syndrome [1,2,3].

The iris bulges in the peripheral part in diffuse pigmentation syndrome, against the iris ligament can cause transient glaucoma with dilated pupils. Many phagocytic cells migrate to the raft area and damage the raft cells. The possibility of an increase in anterior chamber pressure leads to a secondary increase in pressure in the anterior lens. Peripheral iridectomy helps to prevent the iris from changing with regulation..

Classification helps patients with DPS will know progress later to glaucoma. Prevent the iris from coming into contact with the ligament or by the circumference of the iris for these patients. In patients with macular degeneration, a combination of iris shrinkage and retinal detachment treatment is included minimize retinal vitreous shrinkage on the peripheral retina, and does not cause myopia, making dapiprazole an attractive new drug [3].

Mastropasqua study: Retrospectively progressed PDS to the PG and identified risk factors. One hundred and four eyes of 70 patients were followed after 82.6 months.

Use the following classification:

Stage 0: Bulging iris

Stage 1: Bulging iris + pigment granules on the iris or anterior lens, dilated pupil, anterior chamber pigment
Stage 2: Bulging iris + corneal pigment, eye pressure> 21mmHg, normal vision
Stage 3: Vision: damage, glaucoma pigment
About 20% of DPS progresses lead to pigment glaucoma. Usually occurs at the age of 30-40 or older. With high myopia and low age, pigment glaucoma (PG) is more common. 85.8% of PG occurred within 10 years with STIs. On the other hand, 10 years after STST without vision damage, there is less risk of PG. Glaucoma is the most important risk factor when switching from DPS to PG. It was found that nearsightedness and glaucoma are the risks of converting DP to PG. Anti-glaucoma therapy in these patients is indicated.

Treatment:
3.1 Medical treatment [3.4,5]: In rafts, the pupil-contraceptive decreases iris friction and decreases pigmentation. The pupil is less tolerated by young people because of increased regulation spasms and blurred vision. Mastropasqua et al. showed the effect of dapiprazole in 3 eyes of myopia on DPS. The patient has blurred vision and light rings. Dapiprazole is effective in lowering peak intraocular pressure and increasing external circulation during exercise. Half of the patients with PG were treated with 0.5% dapiprazole small 3 times a day in combination with 0.5% timolol equivalent to 0.5% timolol 2 times a day with pilo 1% 3 times a day. There was no difference in both cases treated after 3 months of follow-up. After 12 months, there was a difference in intraocular pressure and increased outflow. This study noted that dapiprazole prevents friction and reduces DPG. The rafting area is clear after 3 months. The prostaglandins analog, latanoprost, reduces intraocular pressure by increasing scleroderma. Iris hyperpigmentation in case of colored iris If there is hyperpigmentation, latanoprost is also unknown. Patches of pigmentation in the raft can be washed surgically. Rinsing the raft area increases the outflow and reduces the patient's eye pressure with PG.
3.2 Surgical treatment: Peripheral Iridectomy [3,4,5,6]: Gandolfi and Vechi reported that after a peripheral iridectomy with a YAG laser on the DPS eye was low, stable intraocular pressure. Of the 21 people with bipedal DPS, one eye had YAG laser and the other eye was a control group. There were 11 eyes (52.3%) untreated and 1 eye (4.7%) of treatment with increased eye pressure> 5mmHg after 2 years of follow-up. The efficacy of peripheral iridectomy is inversely correlated with age and above 40 years of age, which is highly effective. According to this study, young people with DPS are most beneficial with YAG laser iridectomy. If you lower your eye pressure to reduce the main risk of PG, this is an indication but there is much more to know about this technique such as vitiligo complications.
Related retina: DPG is related to myopia, is the risk of retinal detachment and degeneration. Scuderi et al. Reported 33% mesh degeneration frequency in 24 white patients with DPG and PG. The refractive index of this group is +2.5 to - 12. The author stated that there is a close correlation between pigmentary retinitis and retinal degeneration. DPG, near sightedness, and retinal degeneration can be hereditary. Rich hypothesized that DPG is related to chromosome 7q 35-q36.[3]. The cholinergic vasoconstrictor is used to reduce iris friction. A combination of vasoconstriction and retinal detachment therapy in retinal vascular degeneration is also known. Evidence from clinical trials of the Mayo Clinic, shows that treatment with steroids may be more successful than treatment with antivirals. In the case of PG by the virus the radical treatment is the first choice. According to Henry Saraux, surgical glaucoma should be done in the case of ocular hypertension be not restored [4, 5, 6].
4. Prognosis:
There is rare blindness from PG. Risk factor for progression has not been identified other than elevated intraocular pressure. PG may regress over time in some cases. Pigmentation on the trabecular meshwork (TM) and transillumination iris defects have been observed to normalize over time. In the case of IOP has been normalized, suggesting a return of normal TM function. Furthermore, older patients with a diagnosis of normal-tension glaucoma have been confirmed. The iris transillumination defects and dense TM pigmentation suggesting they may have had PG. In such cases, the “pigment reversal sign” helps to distinguish other types of glaucomas [3].

Conclusion:

Patients with DPS should be treated before switching to PG and causing optic damage. Medical treatment is the first choice. In the case of PG by the virus, radical treatment is needed. Surgical treatment should be done in the case really needed with intraocular did not normalize for a long time as well as the cause of PG. Examination of the peripheral retina in patients with DPS and PG is very important to detect degeneration requiring treatment.
Declaration of Interests: The author states that he has no conflicts of interest to declare.

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